

Simple Surgery: Minor Techniques in the FP's Office



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Patients often present to their FPs with skin lesions needing surgical intervention for diagnosis and/or treatment. With a little preparation and a small investment in equipment, most FPs can perform a wide variety of minor surgical techniques in their offices. Once comfortable, this skill set can be made available for the benefit of patients of other FPs in a consultative role.

Types of lesions and procedures

There are many common lesions and simple surgical techniques that a FP can feel comfortable dealing with in the office setting (Table 1).

Space and equipment requirements

For uninfected lesions, perform procedures in a "clean" room where contamination is greatly reduced. The following are essential:

- a comfortable exam table (for patient and physician),
- focused and maneuverable lighting as well as
- an equipment tray.

Although potentially expensive, electrocautery, liquid nitrogen and sterilization units are very cost-effective if used often by offering a

Ethel's case

Ethel, 71, is referred to you with respect to a lesion 6 mm in diameter on her left cheek. It has been growing and now worries her. It is raised with a pearly edge and appears suspicious for a basal cell carcinoma (BCC).

You explain to her your concern and suggest a shave excision, to which she consents. You infiltrate the area with 1% lidocaine, with adrenaline using a 30 gauge needle on a 3 cc syringe. After cleansing the area, you use a #15 scalpel to shave the lesion, using curettage and low energy electrocautery to remove the remaining part of the lesion down to normal tissue. A dab of topical antibiotic ointment and a bandage complete the procedure.

Laboratory findings

The specimen is sent for pathology and returns with a diagnosis of BCC, as was suspected.

When Ethel returns 3 weeks later in follow-up, the site has healed quite well with no evidence of remaining tumour. You instruct her to follow-up with her own FP and to return in the future should there be any recurrences.

procedure consultation service for colleagues, or by sharing with a group. A small, well-organized equipment cabinet on wheels is economical and greatly facilitates procedural efficiency. The drawers should be stocked and organized in the order in which equipment is used (Table 2).

Table 1

Lesions and procedures

Lesions	Procedures
Benign nevi, including skin tags	Biopsy, excision (punch or scalpel), shave/curette, electrocautery, cryosurgery
Warts	Cryosurgery, electrocautery, curette
Non-melanoma skin cancers	Cryosurgery, shave/electrocautery, biopsy, excision
Melanomas	Non-shave biopsy, excision
Sebaceous cysts, lipomas, pyogenic granulomas	Excision
Angiomas	Electrocautery
Chronic paronychia	Wedge resection, complete excision, ablative excision
Rashes for diagnosis	Punch or scalpel biopsy

Principles for simple surgical procedures

Preparation

Consent should be obtained from the patient prior to performing the procedure. Anesthetic is usually required unless the lesion is very small (electrocautery on a small hemangioma) or the procedure itself is only mildly uncomfortable (e.g., liquid nitrogen). True anesthetic allergy is rare and, if necessary, saline infiltration may substitute. Most failures of anesthetic relate to either insufficient time (nerve blocks take several minutes for full effect) or volume (it is unusual in this setting to reach toxicity when used interstitially). Lidocaine can be infiltrated up to 5 mg/kg without adrenaline or up to 7 mg/kg with adrenaline. This means that a 70 kg patient can receive between 250 mg to 350 mg of lidocaine, which is equivalent to 25 cc to 35 cc of 1% of lidocaine, or 12 cc to 17 cc of 2% of lidocaine.

Table 2

The surgical cart

An FP's surgical cart should include:

- Anesthetic agents (1% and 2% lidocaine, with and without adrenaline; mepivacaine 0.25%); syringes (1 cc, 3 cc, 5 cc and 10 cc); needles (18, 22, 25 and 30 gauge, 0.75 and 1.5 inch lengths); saline; alcohol swabs
- Gloves (including non-latex); specimen bottles and requisitions; antiseptic cleanser
- Blades (#10, #11 and #15) and scalpel handles (or one-piece blades and handle sets); punches (2 mm to 8 mm); sutures (non-absorbable: nylon and/or polypropylene 3-0 to 6-0 and absorbable: polyglactin 3-0 to 5-0); sterile single use electrocautery tips
- Bandages; gauze; steristrips; tape; ointment
- Miscellaneous: packing/phenol/splints, etc.

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Take-home message

- FPs are well qualified to perform a wide variety of simple surgical techniques in the office, with only a small number of instruments and a clean working space. This affordable service is well appreciated by patients and colleagues and can be professionally satisfying

Table 3

Basic surgical tray: Essential equipment

- Cup for cleanser
- Scissors: cutting and iris
- Sterile gauze, 2"x 2" and 4"x 4"
- Needle driver
- Snaps or clamps, non-toothed
- Toothed forceps

Cleanse and anesthetize a slightly larger area than you think you will need. Equally, be generous with sterile drapes to allow for the placement of instruments during the procedure.

Instruments

The basic instrument tray should be sterile, meeting the College of Physicians and Surgeons of Ontario (CPSO) Guidelines (see www.cpso.on.ca) and should include a few essential pieces of equipment (Table 3).

To this basic tray can be added:

- Scalpel blades (one-piece blades on handles are ideal)
- Curettes
- Electrocautery tips
- Punches and suture (as needed for each case)

The anesthetic can be applied and these extra pieces of equipment can be added before donning the sterile gloves (beware those with a latex allergy). Organized practitioners can work without assistance. Punch biopsies are particularly efficient. They require little prep time and if the punch biopsy is ≤ 4 mm, they usually do not require anything more than sterile tape strips. Stretching the lesion along one axis makes it elliptical once the round punch biopsy is done, facilitating apposition and closure.

Excisions

Excisions can be done by shaving, if very superficial (NEVER for melanomas as the depth must be known!), or if deeper, by using elliptical incisions whose length should be 2.5 to 3.0 times longer than their width, to minimize skin tension when closing.

To facilitate eversion when closing an incision, the scalpel blade should be held slightly off the vertical so that the deeper layer of the incision is wider than the superficial layer. If there is unacceptable tension when closing, the incision can be either lengthened or the edges undermined (the superficial layer of skin separated horizontally from the deeper layer along the length of the incision with the scalpel blade).

Deeper absorbable sutures or non-absorbable mattress suturing can also be used to ease skin tension and to strengthen closure. Once completed, dressings are applied as appropriate. 